UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,204	12/22/1999	SATOSHI NISHIKAWA	862.3177	5888

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EXAMINER
PHAM, THIERRY L

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/470,204	NISHIKAWA ET AL.
Office Action Summary	Examiner	Art Unit	
	Thierry L Pham	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _RCE filed on 11/16/04_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-22_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some *   c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

● This action is responsive to the following communication: RCE filed on 11/16/04.

● After Final Amendment filed on 8/25/04 has been entered.

● Claims 1-22 are pending in application.

Duplicate Claims

Applicant is advised that should claims 2 and 8 be found allowable, claims 3 and 9 (respectively) will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 6-7, 10, 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (U.S. 5749024), and in view of Shima et al (U.S. 6104498), and further in view of Matysek et al (U.S. 5442732).

Regarding claim 7, Young discloses a printing control apparatus (printer controller #100, Fig. 1, col. 4, lines 1-28) for controlling a printing device to output printing data onto a printing medium, comprising:

● separation printing check means (checks via printer controller 100, fig. 1, col. 1, lines 65-67 to col. 2, lines 1-12 and col. 4, lines 45-60) for checking a separating separation printing setting,

representing whether a predetermined medium (paper sheet, col. 2, lines 30-67) is additionally output over each page of the output printing data result (transparency, col. 2, lines 30-67);

• printing order check means (printing order control system, col. 2, lines 30-67) for checking a printing order setting, set in advance, representing whether the printing data is output from a final page or from a first page (face-up, from page 1 to pages N, or face-down, from pages N to page 1) printing, col. 2, lines 30-67);

• control means (output modules, col. 2, lines 1-10) for selectively controlling to (i) output each page of the printing data and then output the predetermined medium before a next printed page is output when the separation printing setting is set to additionally output the predetermined medium and the printing order setting is set to output (transparency than paper sheet if printing face-down, abstract and col. 2, lines 30-67 and col. 5, lines 5-17), and (ii) output the predermined medium before each page of the printing data is output when the separation printing setting is set to output the predetermined medium and the printing order setting is set to output the printing data from the final page (paper sheet than transparency if printing face-up, abstract and col. 2, lines 30-67 and col. 5, lines 5-17); and

• wherein the printing setting means sets the separation printing setting and the printing order setting with respect to individual print jobs (the printing can be set with respect to individual print jobs by interchanging an attachment of a different output module or printer controller 100 of fig. 1, col. 1, lines 65-67 to col. 2, lines 1-10 and col. 3, lines 35-42).

However, Young fails to explicitly disclose a controller for controlling a printer from a host computer and a printing setting for setting printing order provided by a printer driver.

Shima, in the same field of endeavor for printing, teaches a controller for controlling a printer from a host computer (host computer 42, fig. 3) and a printing setting for setting printing order provided by a printer driver (host computer 42 includes a printer driver for setting a print order such as face up or face down printing, fig. 3, col. 4, lines 32-50 and col. 8, lines 42-62).

The combinations of Shima and Young fail to explicitly teach a printer driver user interface, which allows user to select a separation printing setting.

Matysek, in the same field of endeavor for printing, teaches a printer driver user interface, which allows user to select a separation printing setting (printer driver user interface as shown in figs. 4 allows users to select interleave paper between transparencies and many other

finishing options controlled remotely via a host computer or workstations, col. 6, lines 42-62 and col. 8, lines 65-67+).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Young, Shima, and Matysek because of a following reason: (●) to allow users/operators to control printer's capabilities remotely, i.e., face-up or face-down printing order; by doing so, it will increase operating efficiency and to reduce human intervention; (●) interleave blank papers between transparencies to prevent transparencies from sticking together.

Therefore, it would have been obvious to combine Young, Shima, and Matysek to obtain the invention as specified in claim 7.

Regarding claim 10, Young further discloses the apparatus according to claim 7, wherein the printing medium is a transparent resin film, and the predetermined medium is paper (transparency and paper sheet, Abstract and col. 5, lines 10-15).

Regarding claim 12, Young further discloses the apparatus according to claim 7, further comprising spool means for converting the predetermined data into another format and saving the converted data as a spool file (it is known in the art that print data are converted to a printer format/languages before printing, i.e., PDL, PCL, and/or raster data. Such conversion can be done by printer driver); and de-spooler means for mapping the spool file under control of said control means and supplying the mapped file to the printing device (also see Shima for further information regarding language interpretation and spooling means as shown in fig. 10).

Regarding claims 1, 4, and 6: Claims 1, 4, and 6 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 7, 10, and 12; therefore, claims 1, 4, and 6 are rejected for the same rejection rationale/basis as described in claims 7, 10, and 12 above.

Regarding claim 13: Claim 13 recites limitations that are similar and in the same scope of invention as to those in claim 1 and 7 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, Fig. 3, Shima) for storing computer programs, hence claim 13 would be rejected using the same rationale as in claims 1 and 7.

Claims 14-19 recites limitations that are similar and/or correspond to claims 1, 4, 7, and 10 as described above; therefore, the methods and/or apparatus claims recited (14-19) are included by the operation of the apparatus claim as described above (claims 7 & 10). Please see rejection basis/rationale as described in claims 7 & 10 above.

Claims 20-22 recites limitations that are similar and corresponds to claims 7 & 10 except computer readable memory medium for storing program is claimed rather that printing system or data output apparatus. All computers/printers have some type of computer readable memory medium for storing computer programs, hence claim 20-22 would be rejected using the same rationale as in claims 7 & 10.

NOTE: Claims 14-22 include broader limitations and such limitations are covered by claims 1, 4, 7, and 10. Please see those claims for more details.

Claims 2, 3, 5, 8-9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young, Shima, Matysek as described in claims 1, 4, 6-7, 10, 12-13, and further in view of Ishizuka et al (U.S. 5282050).

Regarding claim 8, the combinations of Young, Shima, Matysek as described in claims 1, 4, 6-7, 10, 12-13 teach the following: ● printing setting means; ● separation printing check means; ● printing order check means; ● control means; and printing setting means for setting with respect to individual print jobs.

However, the combinations of Young, Shima, and Matysek fail to teach a saving state check means for checking whether the printing device is set to a saving state in which a page

having no output data is not output; and saving function invalidating means for invalidating setting of the saving state when setting of additionally outputting the predetermined medium is detected by said separation printing check means and setting of the saving state is detected by said saving function check means.

Ishizuka, in the same field of endeavor for printing, discloses a saving state check means for checking whether the printing device is set to a saving state in which a page having no output data is not output (col. 5, lines 49-67); and saving function invalidating means (since Ishizuka's reference prohibits printing of blank page; therefore, Ishizuka also capable of invalidating of such settings, that is, reversed its settings) for invalidating setting of the saving state when setting of additionally outputting the predetermined medium is detected by said separation printing check means and setting of the saving state is detected by said saving function check means.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify/combine Young, Shima, and Matysek as per teachings of Ishizuka because of a following reason: (●) to eliminate and/or reduce printing cost by "prohibit and/or prevent" printing of pages that contain no data or blank pages.

Therefore, it would have been obvious to combine Young with Ishizuka to obtain the invention as specified in claim 8.

Regarding claim 9 recites limitations that are similar (duplicate) and in the same scope of invention as to those in claims 8 above; therefore, claim 9 is rejected for the same rejection rationale/basis as described in claim 8.

Regarding claim 11, Young further discloses the apparatus according to claim 9, wherein the predetermined content is the same as a content printed on each page of the output result (print job data such as images content on both transparency and predetermined medium, col. 3, lines 35-42).

Regarding claims 2, 3, and 5: Claims 2, 3, and 5 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in

claims 8-9, 11; therefore, claims 2, 3, and 5 are rejected for the same rejection rationale/basis as described in claims 8-9, 11 above.

Response to Arguments

Applicant's arguments with respect to independent claims 1-3, 7-9, 13-14, 17 and 20 have been considered but are moot in view of the new ground(s) of rejection. Note: Newly found prior references teach a printer driver user interface which allows users/operators to select printing settings such as print order (face up or face down) and to select interleave paper for preventing the transparencies from sticking together. Also notes, other print settings options are available, such as finishing options, type of media, double side, and etc. are provided by the printer driver user interface. It is also known in the art that the features/capabilities of the printer can be programmed into the printer driver interface, which allows users/operators to control such features remotely (i.e. host computer) rather than locally as shown in U.S. patent #6362892. For example, if the printer is a color printer, then the printer driver user interface would includes such features (via print dialog box) and provided to the users/operators at the host computer.
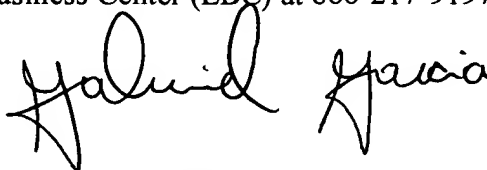
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham

GABRIEL GARCIA
PRIMARY EXAMINER